

3.1 nV/ $\sqrt{\text{Hz}}$, 1 mA, 180 MHz, Rail-to-Rail Input/Output Amplifier

Manufacturers	Analog Devices, Inc
Package/Case	6-Lead SC70
Product Type	Amplifier ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADA4807-1AKSZ-R7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADA4807-1 features high speed performance of 200 MHz small signal -3 dB bandwidth, a 225 V/ μs slew rate, and a settling time of 47 ns to 0.1% (4 V step) with a low input offset voltage of 125 μV (maximum) and 0.7 $\mu\text{V}/^\circ\text{C}$ drift. For ± 5 V supplies, the HD2 is -112 dBc and HD3 is -115 dBc for a 2 V p-p, 100 kHz output signal driving a 1 k Ω load. The low distortion and fast settling time makes this amplifier ideal for driving high speed single-supply precision ADCs with up to 18-bit resolution. The ADA4807-1 delivers this excellent performance while consuming 1 mA or less of quiescent.

The ADA4807-1 (single) is available in space-saving 6-lead SC70 and 6-lead SOT-23 packages, and each operates over the -40°C to $+125^\circ\text{C}$ industrial temperature range. Applications

High speed, battery operated systems

High component density systems

High resolution analog-to-digital converter (ADC) drivers

Portable test instruments

Active filters

Features

Low Noise 3.1 nV/ $\sqrt{\text{Hz}}$ at 100 kHz 0.7 pA/ $\sqrt{\text{Hz}}$ at 100 kHz

Low Distortion (HD2/HD3)-141/-144 dBc at 1 kHz-112/-115 dBc at 100 kHz-95/-79 dBc at 1 MHz

High speed performance-3dB bandwidth: 200 MHz Slew Rate: 225 V/ μs 0.1% Settling Time: 47 ns

Low input offset voltage and drift $\pm 20 / \pm 125 \mu\text{V}$ (typical / max) $0.7 / 3.7 \mu\text{V}/^\circ\text{C}$ (typical)

Low input offset current and drift $8 / 100 \text{ nA}$ (typical / max) $30 / 250 \text{ pA}/^\circ\text{C}$ (typical / max)

Rail-to-Rail Input and Output

Low quiescent current: Enabled: 1 mA at $\pm 5\text{V}$ Disabled: 2.4 μA at $\pm 5\text{V}$

Wide supply range: 2.7 V to 11 V

Small Packaging: 6-lead SC70, 6-lead SOT-23

Application

High speed, battery operated systems

High component density systems

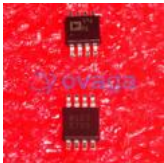
High resolution analog-to-digital converter (ADC)

drivers

Portable test instruments

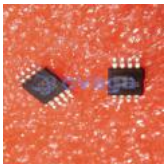
Active filters

Related Products



[AD8418BRMZ-RL](#)

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MSOP-8



[ADA4084-2ARMZ](#)

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MSOP-8



[AD8567ARUZ](#)

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TSSOP-14



[AD8022ARMZ](#)

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[ADA4528-2ARMZ-R7](#)

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SOP23



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SOP-8